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10/634,367

08/05/2003

Thomas Senn

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EXAMINER

HANG, VU B

ART UNIT

PAPER NUMBER

2625

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/634,367	<b>Applicant(s)</b> SENN, THOMAS	
	<b>Examiner</b> Vu B. Hang	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/05/2003</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

- This office action is responsive to the Request for Continued Examination filed on 10/14/2008.
- The amendments received on 09/15/2008 have been entered and made of record.
- Claims 1-21 are pending in the application.

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/15/2008 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 09/15/2008, with respect to the cited prior art and the amended independent claims, have been fully considered and are persuasive. Therefore, the previous rejections of Claims 1-21 have been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Geissler et al. (US Patent 7,262,880 B2).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, 8-14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geissler et al. (US Patent 7,262,880 B2) in view of Romano et al. (US Patent 6,219,154 B1).

5. Regarding **Claims 1 and 21**, Geissler discloses a printing process (see Fig.1 (2,8) and Col.2, Line 29-35) comprising: a pre-printing stage in which digital master image data are provided which represents an original master (see Fig.1 (1,5) and Col.7, Line 4-14), digital printing data for the printing colors involved in the printing that are produced from the master image data, which the digital printing data are transmitted to a print shop by way of a data channel for production in the print shop of printing plates by way of digital printing data (see Fig.1 (2,6,8), Fig.2 (24,26) and Col.7, Line 62 – Col.8, Line 1), the printing process further comprising the steps of: (a) producing test image data representing a test image by image wise colorimetric measurement of at least one printing sample by way of a color measurement (see Fig.1 (2,7,8,9), Col.7, Line 23-46 and Col.8, Line 28-32), the test image being calculated from the digital printing data (see Fig.1 (1,5), Col.7, Line 7-14 and Col.7, Line 37-44); (b) transmitting the test image data produced in the print shop to the pre-printing stage through a data channel (see Fig.1 (1,2,6,7,8,9) and Col.7, Line 34-43); (c) evaluating the test image data for quality monitoring (see Fig.1 (3,10), Col.7, Line 37-46 and Col.8, Line 11-26); (d) transmitting the result of the quality monitoring through a data channel (see Fig.1 (1,6,10,11)); and (e) using in the print shop the result of the quality monitoring transmitted from the quality monitoring stage in order to control the printing process (see Fig.1 (1,2,4,6,8,11) and Col.8, Line 28-32).

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6. Geissler fails to expressly disclose a repeat process for calibrating the color deviations between the master image data and the test image data when they are not in acceptable limits; and releasing the edition printing with the printing plates if color deviations between the master image data and the test image data are in acceptable limits. Geissler, however, teaches controlling the printing process through quality monitoring (see Fig.1 (1,2,4,6,8,11) and Col.8, Line 28-32). Romano teaches a method for calibrating digital plate setters or image setters (see Fig.3, Fig.7A and Col.2, Line 48-55), in which test image data are used to confirm the acceptability of the image data (see Fig.7A, Fig.8 and Co. 13, Line 10-20). Romano further teaches that the quality of the recorded images can be continuously monitored and the plate/image setter can be automatically adjusted to ensure proper recording of the desired image (see Col.8, Line 40-45 and Co1.13, Line 36-40).

7. Geissler and Romano are combinable because they are from the same field of endeavor, namely print processing systems. At the time of the invention, it would have been obvious for one skilled in the art to the steps to repeat the quality monitoring/color calibration process for the color deviations between the master image data and the test image data, and to release the edition printing with the printing plates when the master image data and the test image data are within acceptable limits. The motivation would be to obtain the desired image data for the edition printing. The repeat adjustments/corrections on the image data would enable for the image data to reach the quality level desired for the edition printing.

8. Regarding **Claim 2**, Geissler further discloses determining and then transmitting in the pre-printing stage measurement positions and nominal color values at these measurements positions through a data channel to the print shop (see Fig.1 (1,4,6,7,11), Col.8, Line 2-10 and

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Col.8, Line 24-28), and using the nominal color values in the print shop for the color control of the printing machine (see Fig.1 (1,4,6,7,11) and Col.8, Line 28-32).

9. Regarding **Claim 3**, Geissler further discloses using a spectrally operating color measurement system for the image wise colorimetric measurement system for the image wise colorimetric measurement of the edition printing sample (see Fig.1 (7,8,9) and Col.8, Line 2-10) and wherein the test image data transmitted to the pre-printing stage are spectral data which include for each measured image point remission values for several different wavelengths (see Fig.2 (7,10) and Col.8, Line 2-10).

10. Regarding **Claim 4**, Geissler and Romano teach the printing process of Claim 3 but fail to disclose that the test image data transmitted to the pre-printing stage are spectral data which include for each measured image point, remission values for 16 wavelengths in the range of 400 to 700nm with respective spacing of 20nm. At the time of the invention, it would have been obvious for one skilled in the art to use test image data containing specific remission values. The motivation would be for design choice reasons. A designer may determine the level of accuracy needed for the quality monitoring, and use the test image data with the appropriate remission values.

11. Regarding **Claim 6**, Geissler further discloses quality monitoring of color deviations between nominal color values and the corresponding color measurement values contained in the test image data (see Fig.1 (1,3,7,9,10,11), Col.8, Line 2-10 and Col.8, Line 17-23).

12. Regarding **Claim 8**, Geissler further discloses wherein the reference image is a test print or a trial print produced in the pre-printing stage using the digital printing data (see Fig.1 (3,8,9,10) and Col.8, Line 2-10).

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13. Regarding **Claims 9**, the rationale provided for the rejection of Claim 1 is incorporated herein.

14. Regarding **Claims 10**, the rationale provided for the rejection of Claim 1 is incorporated herein.

15. Regarding **Claims 11**, the rationale provided for the rejection of Claim 1 is incorporated herein.

16. Regarding **Claims 12**, the rationale provided for the rejection of Claim 1 is incorporated herein.

17. Regarding **Claims 13**, the rationale provided for the rejection of Claim 1 is incorporated herein.

18. Regarding **Claim 14**, Geissler further discloses wherein the quality monitoring includes a protocolling of the print quality (see Fig.1 (1,3,6,7,11) and Col.7, Line 12-19).

19. Claims 5 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geissler et al. (US Patent 7,262,880 B2) in view of Romano et al. (US Patent 6,219,154 B1), and in further view of Lavery et al. (US Patent 6,429,947).

20. Regarding **Claim 5**, Geissler discloses calculating a test image on basis of a test image data transferred to the pre-printing stage (see Fig.1 (1,4,6,7,11) and Col.7, Line 37-53), but Geissler and Romano fail to disclose visually displaying the test image with a reference image on a screen for quality monitoring. Geissler, however, teaches controlling the printing process through quality monitoring (see Fig.1 (1,2,4,6,8,11) and Col.8, Line 28-32). Lavery teaches providing a display preview of a print product for customer approval (see Fig. 1 and Col.2, Line 50-52) and passing a proof to a customer for approval (see Fig. 1 and Col.6, Line 20-35).

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21. Geissler, Romano and Lavery are combinable because they are from the same field of endeavor, namely print processing systems. At the time of the invention, it would have been obvious for one skilled in the art include to the printing process of Claim 1 a means for visually displaying the test image with a reference image on a screen for quality monitoring. The motivation would be to provide a visual proofing means for ensuring that the desired image quality is obtained. The visual display of the test image with a reference image on a display screen could determine whether further calibration/correction is needed for the image data.

22. Regarding **Claims 15**, the rationale provided for the rejection of Claim 5 is incorporated herein.

23. Regarding **Claims 16**, the rationale provided for the rejection of Claim 5 is incorporated herein.

24. Regarding **Claims 17**, the rationale provided for the rejection of Claim 5 is incorporated herein.

25. Regarding **Claims 18**, the rationale provided for the rejection of Claim 5 is incorporated herein.

26. Regarding **Claim 19**, Geissler discloses image-wise measuring in the pre-printing stage the test print binding for quality evaluation using the spectral color measurement system (see Fig.1 (1,3,7,9,10,11) and Col.8, Line 2-10) but Geissler and Romano fail to disclose producing a screen display of the test print from the image data obtained, thereby using the screen display as a reference image for comparison with the test image. Geissler, however, teaches controlling the printing process through quality monitoring (see Fig.1 (1,2,4,6,8,11) and Col.8, Line 28-32).

Lavery teaches providing a display preview of a print product for customer approval (see Fig. 1



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and Col.2, Line 50-52) and passing a proof to a customer for approval (see Fig.1 and Col.6, Line 20-35).

27. At the time of the invention, it would have been obvious for one skilled in the art include to the printing process of Claim 1 a means for producing a screen display of the test print from the image data obtained, thereby using the screen display as a reference image for comparison with the test image. The motivation would be to provide a visual proofing means for ensuring print satisfaction. The screen display displaying the test prints, would enable a print operator or customer the opportunity to visually monitor and approve the processed image data for printing.

28. Regarding **Claim 20**, Geissler and Romano teach the printing process of Claim 1 but fail to expressly disclose the color measurement system is equipped with a goniometric measurement means, which allows illumination in different directions for the image capture. Geissler, however, discloses a color measurement system that measures different area coverages and positions of the colors from the image capture (see Fig.2 (27) and Col.8, Line 2-10), and performing spectral measurements for the colors in the image capture (see Fig.1 (3,7) and Col.8, Line 2-10). At the time of the invention, it would have been obvious for one skilled in the art to include to the color measurement system a goniometric measurement means that allows illumination in different directions for the image capture. The motivation would be to perform the spectral data or densitometric measurements on the obtained image data to produce the test color image data. The spectral data or density data of the captured image data are obtained through measuring the different angles of the colors in the image data, for which goniometric measurements can be applied.

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29. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geissler et al. (US Patent 7,262,880 B2) in view of Romano et al. (US Patent 6,219,154 B1), and in further view of Rasmussen et al. (US Patent 6,912,071 B1).

30. Regarding **Claim 7**, Geissler discloses producing digital test print data from the test image data from the pre-printing stage (see Fig.1 (4,5) and Col.7, Line 7-10), producing a physical test print using the digital test print data (see Fig.1 (3,7,8,9) and Col.7, Line 37-53) and comparing the test print with a reference image during quality monitoring (see Fig.1 (3) and Col.8, Line 17-23). Geissler fails to expressly disclose a visual comparison of the test print with a reference image. Geissler, however, teaches controlling the printing process through quality monitoring (see Fig.1 (1,2,4,6,8,11) and Col.8, Line 28-32). Rasmussen discloses producing a physical test print by way of the digital test print data for visually monitoring the image quality of a print product (see Fig.6 and Col.9, Line 15-21).

31. Geissler, Romano and Rasmussen are combinable because they are from the same field of endeavor, namely print processing systems. At the time of the invention, it would have been obvious for one skilled in the art include to the printing process of Claim 1 a means for producing a physical test print by way of the digital test print data and visually comparing the test print with a reference image. The motivation would be to provide a visual proofing means for ensuring print satisfaction. The printed physical test prints, along with a reference image would enable a print operator or customer the opportunity to visually monitor and approve the processed image data for printing.

### ***Conclusion***

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32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu B. Hang whose telephone number is (571)272-0582. The examiner can normally be reached on Monday-Friday, 9:00am - 6:00pm.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vu B. Hang/  
Examiner, Art Unit 2625

/David K Moore/  
Supervisory Patent Examiner, Art Unit 2625